Syntax errors in TypeScript occur when the code does not conform to the language's grammatical rules. These errors are usually caught by the TypeScript compiler during the development process, allowing developers to fix them before the code runs. Here are some common types of syntax errors in TypeScript along with examples and explanations:

**Common Syntax Errors**

1. **Missing Semicolons**

let name = "Alice" // Missing semicolon console.log(name)

let name = "Alice"; console.log(name);

**Incorrect Variable Declaration**

x = 10; // Syntax error: 'x' is not defined

let x = 10;

**Mismatched Brackets or Parentheses**

All opening brackets or parentheses must have corresponding closing brackets or parentheses.

function greet(name: string { console.log("Hello, " + name); }

function greet(name: string) { console.log("Hello, " + name); }

**Incorrect Type Annotations**

Type annotations should match the value types they are describing.

let age: number = "twenty"; // Syntax error: Type 'string' is not assignable to type 'number'

let age: number = 20;

**Missing or Extra Commas**

let array = [1, 2 3]; // Missing comma let obj = { name: "Alice" age: 30 }; // Missing comma

let array = [1, 2, 3]; let obj = { name: "Alice", age: 30 };

**Incorrect Function Syntax**

Functions must be correctly defined with the proper syntax.

function add(a: number, b: number) => { return a + b; }

function add(a: number, b: number): number { return a + b; }